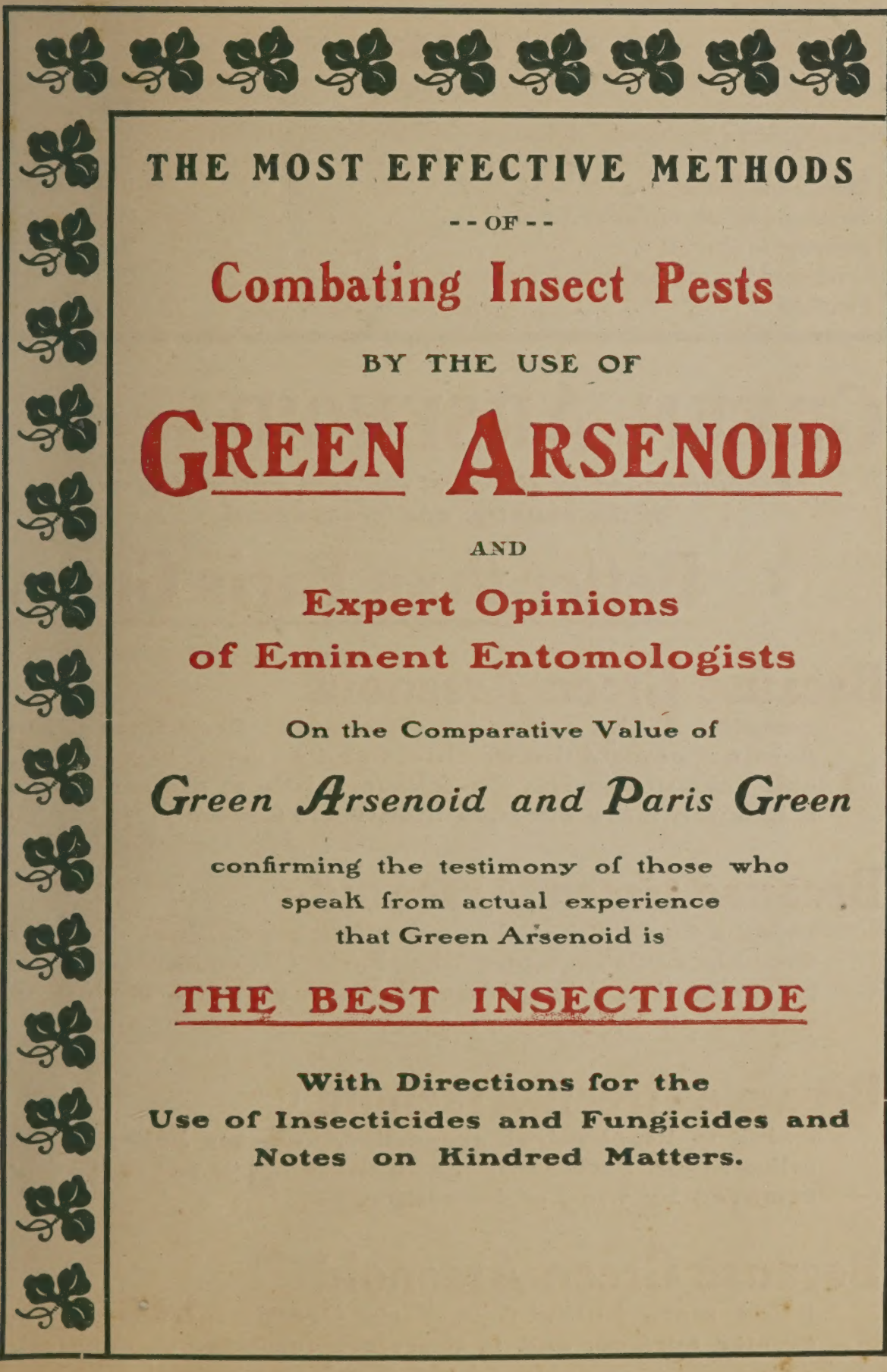




THE MOST EFFECTIVE METHODS

-- OF --

Combating Insect Pests

BY THE USE OF

GREEN ARSENOID

AND

**Expert Opinions
of Eminent Entomologists**

On the Comparative Value of

Green Arsenoid and Paris Green

confirming the testimony of those who
speak from actual experience
that Green Arsenoid is

THE BEST INSECTICIDE

With Directions for the
Use of Insecticides and Fungicides and
Notes on Kindred Matters.

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GREEN ARSENOID

*Recommended by the most eminent Entomologists
of the country, and pronounced*

Better than Paris Green

Because Green Arsenoid

contains all the poisonous elements of Paris Green, but does not contain the worthless and harmful ingredients, and does not scorch the foliage, while at the same time it is much more effective than Paris Green.

Because Green Arsenoid

being a finely divided powder (not crystalline), does not speedily settle in water like Paris Green, but remains in suspension a long time, thereby giving a mixture of uniform strength for spraying.

Because Green Arsenoid

owing to its physical properties, adheres better to the foliage than Paris Green, and therefore is not so readily removed by wind and weather.

Because Green Arsenoid

being more bulky than Paris Green, spreads over a greater surface, and is therefore far more economical.

WE OFFER OUR EAGLE BRAND CONCENTRATED BORDEAUX MIXTURE

(one gallon of which, diluted with twenty-four gallons of water, constitutes the Standard Bordeaux Solution) as follows:

Schedule of Prices	{	1	gallon packages—45 cents per gallon.					
		2	"	"	38	"	"	"
		5	"	"	30	"	"	"
		10	"	"	28	"	"	"
		20	"	"	27	"	"	"
		50	"	"	25	"	"	"

Net Cash, F.O.B. New York.

The Bordeaux Mixture is not only the universally adopted fungicide, but can be used to great advantage in place of water in connection with Arsenoid or Paris Green, the resulting combination acting as both insecticide and fungicide. The Bordeaux Mixture counteracts the scorching effect of the Green, and has a tendency to benefit rather than injure the foliage.

Adler Color & Chemical Works

Established 1836,

Sole Manufacturers of

GREEN ARSENOID,

S. S. F. Brand Strictly Pure Paris Green,
Eagle Brand Concentrated Bordeaux Mixture,
Etc., Etc.

100 WILLIAM STREET, NEW YORK.



Authoritative Statements of Prominent Experts Regarding Green Arsenoid as an Insecticide.

Florida Agricultural Experiment Station and College.

LAKE CITY, FLORIDA, Dec. 11, 1899.

Your communication to Dr. Yocum, inquiring as to the result of tests made with your insecticide, GREEN ARSENOID, has been referred to me for reply. I was not aware of where the insecticide had come from, and was desirous of finding out that I may be able to order it in the future.

I have only been here since the first of October, or I should have attended to your inquiry of August 30. I have found that the ARSENOID is one of the most superior insecticides I have ever used, and can most heartily recommend it for all the uses to which Paris Green is usually put, and it most certainly is superior to that article.

H. HAROLD HUME, B. Sc. AG.,
Professor.

Storrs Agricultural Experiment Station.

STORRS, CONN., Novr. 20, 1899.

We made quite a thorough test with the GREEN ARSENOID and found it fully as effective as Paris Green in the destruction of potato bugs. I am quite fully of the opinion that the GREEN ARSENOID will be a valuable substitute for Paris Green.

C. S. PHELPS,
V. Director.

The Virginia Polytechnic Institute.

BLACKSBURG, VA., Nov. 9, 1899.

We have used your GREEN ARSENOID two seasons, and find it equally as effective in controlling insect pests as Paris Green, with the advantage that it stays in suspension more readily than the latter.

WM. B. ALWOOD,
Professor Horticulture, Entomology and Mycology.

Agricultural Station, Agricultural College.

NORTH DAKOTA, Nov. 7, 1899.

As compared with other insecticides used at this station, have to say that GREEN ARSENOID is equal to any and superior to very many.

J. H. WORST,

Director.

Maine Agricultural Station.

ORONO, MAINE, Aug. 3, 1899.

The GREEN ARSENOID was used upon apples and potatoes with very satisfactory results. As used upon apple trees, its effect upon the tent caterpillar was quite as satisfactory as that of Paris Green, and no injury to the foliage resulted.

CHAS. D. WOODS,

Director.

Dominion of Canada, Department of Agriculture, Central Experimental Farm.

OTTAWA, Jan. 17, 1901.

In reply to your favor of the 3rd inst., I beg to inform you that I used your GREEN ARSENOID with very great satisfaction. The ease with which it mixes and keeps in suspension makes it very convenient, not only for spraying, but also for mixing with other insecticides.

Yours very truly,

J. FLETCHER,

Dominion Entomologist.

Tree Planting and Fountain Society of Brooklyn, N. Y.

Dec. 21, 1899.

We have used the GREEN ARSENOID as an insecticide during the summer of 1899. We have found it as effective as the other forms of Arsenic used for spraying against leaf-eating insects, and easier and much safer in its use.

Yours truly,

LEWIS COLLINS,

Secretary.

EXTRACT FROM "NOTES ON INSECTICIDES."

BY C. L. MARLATT, ASS'T ENTOMOLOGIST

OF THE

U. S. Department of Agriculture.

WASHINGTON, D. C., August, 1898.

"The writer recommended this substance (GREEN ARSENOID) as an insecticide in July, 1895. Several years of experimental testing have followed, some of the results of which have been reported at various sessions of this association. During the last year or two this substance has also been experimented with by several station entomologists and individuals. It is an insecticide which can be used with as great safety as Paris Green, and I believe should be recommended by every station entomologist, from the fact that it has the decided advantage over Paris Green (1) in costing only one-half as much, and (2) in being a very fine pulverulent powder, which remains easily in suspension."

EXTRACT FROM THE REPORT

OF THE

State Board of Agriculture of Virginia, 1900.

M. V. SLINGERLAND, ENTOMOLOGIST, CORNELL.

Green Arsenite of Copper (Arsenoid) Cheaper. Paris Green is primarily manufactured as a pigment for green paint, and in making it, acetic acid is used. This acid does not increase the insecticidal qualities of the poison, and does increase its cost considerably. It is a little lighter in color than Paris Green; it is a finer powder, hence it will not need so frequent stirring; it contains as much arsenic; and careful, thorough tests during the past two years have shown that this green arsenite (ARSENOID) is just as effective in killing insects, and can be used in the same amounts in water or Bordeaux Mixture.

EXTRACT FROM BULLETIN No. 50.

Delaware College Agricultural Experiment Station.

E. DWIGHT SANDERSON AND F. D. CHESTER.

March, 1901.

GREEN ARSENOID is slightly superior to Paris Green in composition and appears to be equally safe on foliage when applied at the ordinary strength. Rather preferable to Paris Green. Add plenty of lime.

EXTRACT FROM BULLETIN No. 143,

New York Agricultural Experiment Station.

GENEVA, N. Y.

BY V. H. LOWE, ENTOMOLOGIST.

"GREEN ARSENITE should be used the same as Paris Green. For ordinary purposes, use one pound to from 100 to 150 gallons of water with the addition of enough freshly slacked lime to make the mixture slightly 'milky' in appearance. It may be used with Bordeaux mixture in the same manner as Paris Green.

"Experiments with GREEN ARSENITE made by the writer are recorded on pages 600-601 of Bulletin No. 136 of this Station and on previous pages of this Bulletin. In the former instance the insecticide was successfully used against a flea beetle, *Systema Hudsonias Forst.*, attacking young apple grafts, and in the latter with equal success against the cottonwood leaf-beetle, *Lina Scripta Fab.*

"In the spring of 1896, and again in 1897, the writer used GREEN ARSENITE against the spring canker worm in an orchard near the Station. Fourteen large bearing apple trees were used in the experiments. Both seasons the trees were sprayed three times, the first being about the middle of May and the remaining two from a week to ten days apart. In 1896 the remainder of the infested orchard was sprayed with ordinary Paris Green, and in 1897 the GREEN ARSENITE alone was used. In 1896 the trees sprayed with GREEN ARSENITE were more uniformly free from canker worms than those sprayed with Paris Green, while in 1897 the sprayed trees were practically free from canker worm after the second application, which was made May 22, while the unsprayed trees were nearly stripped of their foliage. In addition to the above experiments the writer used GREEN ARSENITE upon young pear trees against the fruit worm and upon potatoes against the Colorado potato beetle."

EXTRACT FROM "THE NATURE AND USE OF CERTAIN INSECTICIDES."

BY J. L. PHILIPS, ASS'T IN ENTOMOLOGY,
H. L. PRICE, ASS'T IN HORTICULTURE.

Virginia Agricultural Experiment Station.

February 1900.

"GREEN ARSENOID.—Compared with Paris Green it is duller green in color, more finely powdered, bulkier, remains in suspension longer, and is less costly. Used in the proper proportions it does not burn foliage, and is quite as effective as Paris Green. We have given this preparation a thorough trial with the most satisfactory results.

"The past season we made a comparative test of both new and old arsenicals against the potato beetle, with a view to ascertaining the comparative merits of the preparations, the proper strength which should be used of each, and their effect on foliage of the plant. In no case was lime added to prevent burning of the foliage. Extended observations were made covering a period of several days. The final note as to effect on foliage was made eleven days after application.

"GREEN ARSENOID, from ADLER COLOR & CHEMICAL WORKS, New York, two pounds to one hundred gallons water, killed all beetles. No burning.

"GREEN ARSENOID, one pound to one hundred gallons water, killed all beetles. Destroyed beetles as well or better than Paris Green. No burning.

"GREEN ARSENOID, one-half pound to one hundred gallons water: Rather weak; a few beetles escaped. No burning."

EXTRACT FROM BULLETIN No. 65,

Maryland Agricultural Experiment Station.

COLLEGE PARK, MD., March, 1900.

"GREEN ARSENOID.—This material is a substitute for Paris Green and is applied in the same manner. It is more bulky than Paris Green and contains no acetic acid; and it is not, therefore, so apt to burn the foliage. It can be used in solution or dry. It has been tested thoroughly by several Experiment Stations, and has the decided advantage over Paris Green (1) in costing less, 13 to 15 cents per pound, and (2) in being a very fine pulverulent powder, which remains easily in suspension when in water."

*One Hundred Specimens
of Testimonial Letters
Received from Users of Green Arsenoid
Who speak from Actual Experience.*



WILLSBORO POINT, N. Y., Nov. 6, 1899.

In reply to your inquiry as to how I like the ARSENOID as an insecticide, would say that my customers and myself, as fruit growers, have never found its equal. We had some orchards that the canker worms had completely covered, and within a few hours after the spray the ground was covered with the falling worms.

Don't hesitate to put it in the field anywhere, nor to give it the highest recommendation. Its adhesive quality is very important, as the rains do not wash it off.

Hastily yours,

L. H. CLARK

SANTA ANA, CAL., Sept. 17, 1900.

The ARSENOID has proved quite a success. I sprayed 1000 apple trees three times with it for codling moth and it has done much better work than Paris Green, or London Purple. I think I can safely say I have saved over 100% more of my fruit trees with the ARSENOID than any other insecticide that I have used.

S. PENFOLD.

MARLBORO, N. Y., Sept. 30, 1899.

I am in receipt of your letter of the 28th inst., and in reply would say that the GREEN ARSENOID proved very effective as an insecticide. I used it together with the Bordeaux mixture for currant worms at the rate of $\frac{1}{2}$ lb. to 50 gallons of water, and the application destroyed the worms for the season. We use the Bordeaux for the foliage and the ARSENOID for the insects. The lime in the Bordeaux holds the poison for the next crop of worms. I also find it would mix better with water than Paris Green, does not settle to the bottom, but stays in suspension better. I sold some to our most prominent fruit growers and they report favorably. We have had a great deal of adulterated Paris Green on the market; we want something standard, and I can recommend your ARSENOID.

Yours truly,

B. HARCOURT.

MILFORD, LASSEN CO., CAL., Oct. 22, 1900.

I selected certain trees to be sprayed with your ARSENOID, certain trees to be sprayed with Paris Green, and certain trees to be sprayed with London Purple. Tried it only on apple trees, each one at the rate of 150 gallons to the pound. I can join with the rest of users of ARSENOID in its praise as being superior to Paris Green.

Yours truly,

H. CROCKER.

GENEVA, N. Y., Aug. 5, 1900.

The GREEN ARSENOID I purchased of you last spring has more than fulfilled my expectations and I am satisfied that it is the cheapest and far the most economical Insect Poison I ever used. I find my apples as free from worms, etc., as when I used Paris Green, but the quickest and most decisive test was on potato bugs. I mixed two tablespoonfuls in a three gallon pail of land plaster and sprinkled potatoes at 10 o'clock A. M., and before noon hardly a bug was to be seen, nor was it necessary to repeat the dose. The bugs did not re-appear at any time. I purposely left a few rows for experimentation and applied other "so-called" poisons—*not* Paris Green—to them, but six days afterward all those rows were covered with a new crop of bugs, requiring a treatment with the ARSENOID which killed them. I shall therefore use it in future with the most unlimited confidence, glad to be *sure* that my time and labor in application will not be thrown away, as has often been the case in the past. What is more annoying and expensive than to find that after all the work involved, the *quality* of the poison is defective and fails to kill? There are other advantages in the use of your ARSENOID. It is light and easy to mix in plaster or any fine powder, and in water holds more easily in suspension.

A. HAMMOND.

GENEVA, N. Y., Oct. 4, 1899.

At any time you see fit, I shall be glad to receive your quotations on GREEN ARSENOID for the coming season. In all instances in which I have used this during this season it has been an entire success. Indeed, I see no reason why any one should use Paris Green where this is obtainable, as it works so much better in a mixture of water than Paris Green, that it seems to me, in the future, it should take the place of it.

Very truly,

SAM'L D. WILLARD,

Fruit Grower.

SOUTH BYRON, N. Y., Oct. 30, 1899.

We are pleased to state that the use of your GREEN ARSENOID in the work of exterminating the codling moth, canker worm, and other injurious insects in our orchards the past season gave equally, if not better results, than any other insecticides ever used. A very favorable feature connected with its use is that it remains in suspension much more readily than Paris Green.

Very truly yours,

I. D. COOK & SON,

Fruit Growers and Farmers.

CANOGA, N. Y., Oct. 18, 1899.

Have used your GREEN ARSENOID for spraying apple orchard, and also potatoes, with very satisfactory results. I think it much easier to handle and also less expensive than Paris Green.

Very respectfully,

GEO. L. McDUFFIE.

CANANDAIGUA, N. Y., Nov. 23, 1900.

The result of a trial of your GREEN ARSENOID, notwithstanding my prejudice, has been most satisfactory. I used it on plums, cherries, peaches, pears, quinces, apples and potatoes and found it successful. In regard to using it on potatoes, I found it superior to anything I have ever used. It mixes better with water and goes farther than the same amount of Paris Green.

Most respectfully yours,

LEWIS M. SMITH.

MONTGOMERY CREEK, Cal., Nov. 23, 1900.

I have tried GREEN ARSENOID on trees that were infected with woolly aphids. I mixed it with common ashes and spread it around the trees and it has killed every one and effected a permanent cure.

Respectfully yours,

DAVID KILPATRICK.

N. WALWORTH, N. Y., Nov. 20, 1900.

The GREEN ARSENOID purchased of you the past season gave splendid satisfaction, and find it to be very economical, since one pound will do as much as two pounds of the best Paris Green that I ever got hold of. I shall certainly want more of it (not the Paris Green).

Respectfully yours,

H. W. HORN.

BAYVILLE P. O., N. Y., Nov. 20, 1900.

I have given the GREEN ARSENOID a good trial and find that it is the best insecticide I have ever used. I put it on with my horse sprayer and it cleaned off the bugs, but did not burn the foliage. It has given good satisfaction.

Respectfully yours,

MARSHALL T. TORBERT.

FAYETTEVILLE, N. Y., Sept. 30, 1899.

In reply to your favor of the 26th inst. The GREEN ARSENOID purchased of you last spring has been very satisfactory in its effects, proving destructive to currant worms, tent caterpillars, etc., and I have seen no injury to the foliage from its use. It is easy to mix in water, and remains in solution much better than Paris Green.

Yours very truly,

SAM'L J. WELLS, Prop.

Wellwood Fruit Farm.

SODUS CENTRE, N. Y., Sept. 30, 1899.

Yours of the 28th received, and I take pleasure in telling you that your GREEN ARSENOID gave the best of satisfaction, dissolving in water better than Paris Green, and remaining in suspension a much longer time. I used it in spraying apples, peaches, cherries, also potatoes.

Yours respectfully,

GARDNER A. MUNN.

EVAN, MINN., Sept. 8, 1900.

I have used your GREEN ARSENOID last summer on my potatoes. In my opinion it has double the killing strength of any poison that I ever had any experience with on my farm.

Very truly yours,

J. C. PETERSON.

BILLBOROUGH, ONT. CO., N. Y., Nov. 15, 1900.

My delay in reply to your favor of the 6th of Sept. was due to the fact that I wished to pick the apples before replying. I think where GREEN ARSENOID was used the apples were more free from worms than where Paris Green was used. I consider GREEN ARSENOID the best.

Respectfully yours,

W. H. M. McKELVIE.

NORTH BERWICK, ME., Oct. 10, 1900.

Yours received. In reply would say that I have given your GREEN ARSENOID a thorough trial and consider it *superior to Paris Green in every respect.*

Very truly yours,

J. E. ABBOTT.

VACAVILL, CAL., Nov. 2, 1900.

I have used the GREEN ARSENOID the past season on pear trees for codling moth. I have found it more soluble, not washed off as readily as Paris Green and as effective. I shall use it hereafter instead of Paris Green and feel certain of its superiority.

G. W. ALLEN.

NEW HAVEN, CONN., Oct. 8, 1900.

I think the GREEN ARSENOID preferable to Paris Green or any other insecticide I have tried for the purpose I used it. It being of much less specific gravity, it remains much longer suspended in water, which is very much in its favor, and it is very effective.

Yours,

P. A. PERRY.

MOUNT JOY, PA., Sept. 20, 1900.

I will cheerfully give you my experience with the GREEN ARSENOID I purchased of you this season. I used it altogether in place of Paris Green and found it just as effective and not as liable to scorch the foliage, without the addition of lime water as Paris Green, and besides it is much cheaper. For currants and gooseberries it is much better than Hellebore.

Yours truly,

H. M. ENGEL.

W. BUXTON, ME., Sept. 19, 1900.

I used GREEN ARSENOID the past season and found it very satisfactory and superior to all other insecticides which I have ever used in the past seasons. Shall use GREEN ARSENOID the coming season and highly recommend the same to all those that are trying to destroy potato bugs.

Very truly yours,

E. H. PHINNEY.

DOWLING, OHIO, Sept. 19, 1900.

Your letter of request at hand. The GREEN ARSENOID worked all right. At the price you sold it last spring it is cheaper than Paris Green and does not injure the foliage near as quick. I mixed it about the same as I used Paris Green other years and it killed the bugs in a very short time, and I think it comes cheaper. I want more of it next year.

Yours truly,

FRED. W. HENRY.

PITTVILLE, SHASTA Co., CAL., Sept. 18, 1900.

I have used your GREEN ARSENOID for codling moth and it is all O. K. It is the best I have ever used. I also used it on black ants. It will kill black ants and keep them out of any bee-house. Mr. C. R. Young of Pittville has a fine bee-house, but the black ants used to destroy both bees and honey until I used your GREEN ARSENOID on them and it worked like a charm. Mr. Young told me to tell you that he would not be without it. We cannot express thanks enough for your valuable powder. Any one wishing to refer to me can do so.

Yours very truly,

J. W. MAURER.

COS COB, CONN., Sept. 17, 1900.

I found the GREEN ARSENOID altogether satisfactory for potatoes and other vegetables, also in spraying apple trees and grape vines, currants, etc. Used it on 100 peach trees and some European plums with good results. Will try it again next season.

Yours,

J. A. SEITZ.

VISCHER FERRY, N. Y., Sept. 17, 1900.

I used your GREEN ARSENOID and found it gave much better satisfaction than Paris Green for all insects. Respectfully yours, M. G. MASSOTH.

SOUTH BEND, IND., Oct. 31, 1899.

In reply to your request of Oct. 27, would say of the GREEN ARSENOID as an insecticide: I have found by using the same amount by weight that it is cheaper, just as effective, mixes better with water, and does not injure the foliage as other insecticides.

Yours, D. ROCKHILL.

LAWYERSVILLE, N. Y., Sept. 17, 1900.

During the past season I have used GREEN ARSENOID in combating the forest caterpillar on apple trees and with almost entire success. We have used it both with water alone, and in combination with the standard Bordeaux Mixture, using it at the rate of 1 pound to 100 gallons of water. We think that its less specific gravity and finer divisibility give it a very decided advantage over Paris Green.

Very respectfully, JARED VAN WAGENEN, JR.

WASHBURNE, ME., Sept. 16, 1900.

I used the GREEN ARSENOID I had of you with good results. It did not burn the foliage, and I like it better than Paris Green.

Respectfully yours, S. W. TABER.

KIRKWOOD, IOWA, Sept. 15, 1900.

The GREEN ARSENOID I purchased of you I had occasion to use on potatoes and I think it answered the purpose of driving the bugs away. Came back;—A second dose saved the potatoes, while the bugs entirely stripped the potatoes for my neighbors.

Respectfully, E. A. KERSCHNER.

COLDWATER, IOWA, Sept. 15, 1900.

Used GREEN ARSENOID on my plum trees last spring and am well satisfied with the result, as I had but few wormy plums this year. I shall want more next spring.

Respectfully, RUDOLPH LANDIS.

TOWER FARM, WORTHINGTON, MASS., Sept. 14, 1900.

The GREEN ARSENOID purchased of you early in the season was used only upon potatoes, not having occasion for more extended use. We found it entirely satisfactory, equaling all its claims, and in our opinion superior to other insecticides we have employed.

Respectfully yours, SAM'L S. SEELY.

ADRIAN, MINN., Sept. 14, 1900.

I am in receipt of yours of the 6th inst., asking for advice as to my experience in spraying with the GREEN ARSENOID purchased of you last spring. Answering, you are informed that I used same for spraying fruit and ornamental trees, as well as nursery stock this season, and found it a very good insecticide and believe that any one using it once will continue to do so. I shall want it again next season.

Very truly yours, FRED. MOHL.

SANTA ANA, CAL., Sept. 13, 1900.

Last spring I used GREEN ARSENOID for spraying apples and pea vines to protect the growing fruit from the codling moth, and find the results most encouraging. Previous years I used either Paris Green or London Purple, and while they give considerable protection I think thus far the ARSENOID is giving the best results.

Respectfully, F. A. MARKS.

WINTER HAVEN, CAL., Sept. 11, 1900.

Used some of your GREEN ARSENOID this past season and it gave satisfaction. I think it is superior to Paris Green, either used dry or wet. I found it very effective against tomato worms in using it with flour and applying with powder gun when dew was on the plants. I also find that it does not scald the foliage like Paris Green. Shall try it again this coming season.

R. G. SNOWDEN.

CROZET, VA., Sept. 11, 1900.

I received your GREEN ARSENOID early this summer and found it much easier to keep in solution than Paris Green. I was so well pleased with its effects that I recommended a druggist in Charlottesville to keep it in stock. This he has since done and I have purchased more from him. I propose using it entirely next spraying season in place of Paris Green.

Yours truly, WALTER WHATELY,
Fruit Grower.

CANASTOTA, N. Y., Sept. 10, 1900.

The GREEN ARSENOID purchased of you this season was tested on potatoes by the side of ordinary Paris Green, called *pure*, and the ARSENOID gave better satisfaction by making a cleaner sweep of bugs and no injury to the vines.

Respectfully, J. W. GOODELL.

MOUNT UPTON, N. Y., Sept. 10, 1900.

The GREEN ARSENOID I purchased of you I found to be first class in all respects. First: Its mechanical condition is such that it mixes with water much better than Paris Green and it sprayed perfectly. Second: I used it freely and did not notice that it burned the potato vines at all. Third: A given weight will go at least three times as far as the same amount of Paris Green, making the expense much less. Fourth: I much prefer to handle it to Paris Green. Shall want more next season. Wishing you success, I am,

Respectfully yours, J. A. MUSSON.

WALDO STATION, ME., Sept. 10, 1900.

We made use of the package of ARSENOID sent us on potatoes, going over them only twice in the season, without any apparent injury to the tops, but destructive to the potato bugs, at about half the usual expense of other insecticides used by us in previous years.

OMAR G. HUSSEY.

PARK NURSERY, KINMUNDY, ILL., Sept. 10, 1900.

Your GREEN ARSENOID did me good work and shall use it again next season. Many of my neighbors who used Paris Green and watched the results in my work have decided to use ARSENOID next year.

Very truly yours, E. G. MENDENHALL.

BAR MILLS, ME., Sept. 10, 1900.

I have given your GREEN ARSENOID a very good trial in spraying apple and plum trees, and find it does not burn the foliage near as much as other preparations, and has the desired effect in killing all insects that trouble the fruit, in fact, it is the best thing I have ever used for fruit spraying. Shall want more of it next spring.

Yours, T. H. BERRY.

GREENFIELD, IND., Sept. 9, 1900.

I used your GREEN ARSENOID during the spring and summer of the present year. I sprayed apple, peach and plum trees with it. Also used it extensively on potatoes. Do not hesitate to say that the GREEN ARSENOID is the best and most economical insecticide I have ever used.

Most respectfully yours, A. L. OGG.

THE CAPITAL NURSERIES, N. TOPEKA, KAN., Sept. 8, 1900.

Yours of the 5th received. In reply will say that we have used the GREEN ARSENOID only for spraying trees. We found it very satisfactory, being fully as good as Paris Green and much easier to use in the pump. We gave a few pounds to a neighbor potato grower and he used it in his field, marking off so many rows for the ARSENOID and the balance for Paris Green. He reported the result very satisfactory. We shall probably want more another season.

Very truly yours, PETERS & SKINNER.

GIRARD, PA., Sept. 8, 1900.

For the past seven years in my nursery and fruit-growing business I have practiced spraying. The past season I have used your GREEN ARSENOID with perfect satisfaction in every case. I find your ARSENOID used once early with Bordeaux Mixture on currants destroys the currant worm for the entire season.

C. E. ARCHIBALD.

N. FAYETTE, ME., Nov. 26, 1900.

Yours received inquiring about my experience with GREEN ARSENOID. I sprayed one-half acre of potatoes twice and it killed the bugs to perfection. *I think it goes farther than Paris Green* and think IT SUPERIOR to Paris Green. I shall want to use it again next year.

FRED. G. PALMER, P. M.

SPARKILL, N. Y., Sept. 7, 1900.

Yours received. Would say that I have used some of your GREEN ARSENOID with the greatest of pleasure, that as an insecticide it has given the very best satisfaction and will hereafter use no other.

Yours truly, M. L. BELL,
Mountain Side Farm.

SOMEREST, N. Y., Sept. 7, 1900.

In reply to yours of the 5th inst. We are pleased to say that the Farmers and Fruit Growers are *much pleased* with GREEN ARSENOID. It was new to this section and we bought only 200 lbs. on the first order, as the Farmers and Fruit Growers are inclined to be skeptical of new things; but one trial was enough to convince them that it was a good thing and we could not get ARSENOID fast enough for them after that. GREEN ARSENOID gave *entire satisfaction*.

Yours truly, H. H. FROST & SON.

SENECA FALLS, N. Y., Sept. 7, 1900.

I received your request this morning for report on the use of your GREEN ARSENOID and will say I found it *equal* to if not *better* than anything I ever used for the purpose intended. Its use did not affect the foliage of anything applied to. If I live, expect to sell a good deal for you next spring.

Very truly yours,

B. F. BEACH.

GREENFIELD, IND., Sept. 7, 1900.

We have used your ARSENOID during the past season on our growing Nursery Stock and Orchard and find it to give more satisfaction than Paris Green, being, as we believe, more effective on account of its staying suspended in water. Where an insecticide is needed we shall certainly use ARSENOID hereafter if it can be obtained at a reasonable price.

Yours truly,

J. K. HENBY & SON,

Pan-Handle Nurseries.

ORLANDO, FLA., Nov. 26, 1900.

I have used your ARSENOID for scale and mealy bugs on pineapples, and find it very effective. It is the only insecticide that I found (except the Bordeaux Mixture) that kills them. It is a good thing to try upon any kind of insect as far as I have tried it.

Respectfully,

JOSEPH BUMBY.

BRISTOL SPRINGS, N. Y., Nov. 9, 1899.

Every one who has used GREEN ARSENOID joins me in saying that it is more effective than Paris Green. I am going out of the grape business, but will recommend it wherever I may locate.

Very truly yours,

MARTIN ROHLIN.

BLUFF POINT, N. Y., Oct. 30, 1899.

Your inquiry as to the result of my experience with GREEN ARSENOID duly received. I consider your ARSENOID superior to Paris Green in point of solubility. It destroys the canker worms and other leaf-eating insects, if applied soon enough. I shall use it next spring. It will be more generally used next season in this vicinity, if obtainable at price of last year.

Very truly yours,

S. WILLIAMS.

KINDERHOOK, N. Y., Oct. 30, 1899.

Yours of the 27th at hand. In reply would say that during the last season I used GREEN ARSENOID, manufactured by you, in place of Paris Green, and found it satisfactory in all respects.

Yours truly, J. SPENCER HOSFORD.

MILTON, N. Y., Oct. 28, 1899.

Yours of the 27th at hand. I used 50 lbs. of your GREEN ARSENOID this season and was well pleased with it. Will want more of it next spring.

Very truly yours,

A. B. CLARK.

HILLSDALE, MICH., Oct. 28, 1899.

Your letter of Oct. 27 received. In reply would say that the ARSENOID gave good satisfaction. No complaint.

Very respectfully, L. A. GOODRICH.

SPENCERPORT, N. Y., Oct. 7, 1899.

Replying to your inquiry in regard to our experience with GREEN ARSENOID, I would say that it has been very satisfactory, the ARSENOID proving very effective against the potato beetle, and also against canker worms in apple trees.

Respectfully yours, F. M. HARROUN.

HIGHLANDS, N. Y., Oct. 6, 1899.

Your inquiry of the 2d inst, asking us about GREEN ARSENOID, is at hand. I have seen several who have used it, and they are all satisfied. We will undoubtedly sell a great deal more next season than we did this.

Yours truly, ROSE & CLEARWATER.

WAYNESBORO, N. Y., Oct. 2, 1899.

I have used your GREEN ARSENOID largely and find it gives better satisfaction than any poison I have ever used.

Very truly yours, JAS. CRAIG, Manager,
Rose Cliff Fruit Farm.

CEDARCLIFF, N. Y., Sept. 6, 1900.

Yours of the 5th received. The GREEN ARSENOID purchased of you this year gave very good satisfaction. It stays in suspension, we think, better than Paris Green. Should judge it excels Paris Green as an insecticide.

Yours truly, WM. YOUNG & SON.

GENEVA, N. Y., Sept. 7, 1900.

I am pleased to say that the GREEN ARSENOID I purchased of you seemed to do the work well and proved perfectly satisfactory.

Respectfully, D. H. PATTY, Nurseryman.

MONTPELIER, VT., Sept. 8, 1900.

I like your GREEN ARSENOID very much, as it remains in suspension so much better than Paris Green and does not scorch the foliage.

Respectfully yours, E. W. BUGBEE.

CHERITON, VA., Sept. 8, 1900.

Replying to yours of the 5th, will say that the GREEN ARSENOID bought of you gave entire satisfaction. I prefer it to Paris Green.

Respectfully, G. U. NOTTINGHAM.
Edgewood Truck Farm.

YOUNGSTOWN, N. Y., Sept. 8, 1900.

Replying to your inquiry would say that I think the GREEN ARSENOID is equal to Paris Green for killing insects, and it stays in suspension in water much better. I used it twice on my orchard with good results,

Respectfully yours, A. H. DUTTON.

SALEM, ME., Sept. 8, 1900.

I used the GREEN ARSENOID with very good results. There were so many showers that it was hard to tell how it would work. One piece of potatoes I had to go over only once, and the bugs were very thick. I think it far ahead of Paris Green.

A. B. WALKER.

VALLEY VIEW FRUIT FARM, Marlborough, N.Y., Sept. 6, 1900.

We have used GREEN ARSENOID exclusively this year as an insecticide and found it satisfactory in all respects. Potato bugs were so plenty and persistent this year that we used one-half pound to 50 gals. of Bordeaux Mixture.

Yours truly, C. G. VELIE & SON.

THE MIDWAY NURSERIES, KEARNEY, NEBR., Sept. 9, 1900.

The ARSENOID is very effective. Is much cheaper and easier to use than Paris Green. Shall recommend it to all who need a bug poison.

Respectfully, J. L. BROWN.

METUCHEN, N. J., Sept. 10, 1900.

I have used the GREEN ARSENOID and find it effective and satisfactory. It is mixed more easily than Paris Green and remains in suspension longer.

Yours truly, A. W. MARSHALL.

MIDDLEPORT, N. Y., Sept. 10, 1900.

The GREEN ARSENOID I used last spring worked well and gave good satisfaction as far as I am able to determine. I prefer it to Paris Green.

Yours truly, A. G. SHERWOOD.

FORT PLAIN, N. Y., Sept. 10, 1900.

The GREEN ARSENOID purchased of you last season proved to be one, if not the most, satisfactory ARSENOID we have ever used; it is all right.

Very truly, M. E. TIMMERMAN.

CLAYVILLE, N. Y., Sept. 10, 1900.

The ARSENOID remains in suspension longer than Paris Green, and works better than Paris Green when applied with sprayers.

Yours, DR. J. E. JONES.

ST. LAWRENCE NURSERY & ORCHARD,

RAYMONDVILLE, N. Y., Sept. 11, 1900.

I used the GREEN ARSENOID on fruit trees and potatoes and like it better than any Paris Green I have ever used. It is much lighter in bulk, holds in solution much longer and I shall use it in future.

Yours truly, A. F. CLARK.

HALLOWELL, ME., Sept. 14, 1900.

The ARSENOID mixes so much better in water, I shall use it instead of anything I have ever used.

Yours truly, E. P. CHURCHILL.

MORRISTOWN, MINN., Sept. 14, 1900.

We used the GREEN ARSENOID with success. Will give you large order next season. Think it better than Paris Green for Aphis and potato bug.

SETH H. KENNY.

ALBANY, GA., Sept. 17, 1900.

I found the small quantity of GREEN ARSENOID deadly poison to insects.

MORRIS WELOSKY.

ALDIE, LOUDOUN CO., VA., Sept. 17, 1900.

Your GREEN ARSENOID was recommended to me by the Virginia Experiment Station and I have now used it two seasons with great satisfaction.

Truly yours, HENRY FAIRFAX.

VOLCANO, CAL., Sept. 18, 1900.

In reply to your letter of the 6th. I received the ARSENOID very late, but the result was good and I am satisfied with the effect of the spray.

Yours truly, GEO. DEPLOTZ.

HAMILTON, N. Y., Sept. 19, 1900.

The limited trial which we gave your GREEN ARSENOID this year was very satisfactory. It was very effective and did not appear to injure the foliage at all.

Yours truly, ALBERTUS STARR.

HIGHLAND, N. Y., Sept. 20, 1900.

I like GREEN ARSENOID very much and have used it for a number of years in spraying in preference to Paris Green, especially on account of its not settling so quickly.

Yours truly, J. L. PRATT.

BELFIELD, VA., Sept. 22, 1900.

I used your GREEN ARSENOID in spraying potato bugs, grape vines and trees for caterpillars and found it did the work O. K. I found it superior to Paris Green, for it stayed in suspension much longer in water, thereby giving a much even distribution of the poison.

Very respectfully, F. M. HUMMON.

CORINNE, UTAH, Sept. 25, 1900.

Replying to your favor of Aug. 30th, will say that I used GREEN ARSENOID on pear and cherry trees this season for the pear slug with perfect success. I prefer it to Paris Green as it remains in suspension longer and goes farther.

Yours very truly, A. A. WOODWORTH.

RHINEBECK, N. Y., Sept. 26, 1900.

The party to whom we sold GREEN ARSENOID this season, Mr. Jacob Beach, Supt for E. H. Crosby, Esq., informs me that he was entirely satisfied with the goods, considering it superior to Paris Green in every way, and giving me permission to use his name to that effect.

Yours truly, GEO. TREMPER & CO.

KENNEDY, N. Y., Oct. 7, 1900.

GREEN ARSENOID gave entire satisfaction. It was used on potatoes.

Very truly yours, ARTHUR GOODWIN.

WEST SHOKEN, ULSTER CO., N. Y., Sept. 26, 1900.

We have used your GREEN ARSENOID the past season and it has given good results and has accomplished all you claim for it.

Yours truly, C. H. WEIDNER, Fruit Farm.

AFTON, N. Y., Oct. 12, 1900.

In reply to yours of the 6th of Sept., would say that I used your GREEN ARSENOID this year and find it very satisfactory.

Yours truly, GEO. L. CHURCH.

KASOTA, MINN., Oct. 12, 1900.

I used your GREEN ARSENOID on my potatoes the past season and found it superior to Paris Green in every way.

Respectfully yours, S. D. PAYNE.

HONITOS, CAL., Oct. 13, 1900.

Did not use the ARSENOID as much as I expected to, but on all vegetables that we used it on it gave good satisfaction, and would recommend it. It is very good for destroying ants.

Truly yours, J. M. MALONEY.

GHENT, N. Y., Nov. 15, 1900.

We have found the GREEN ARSENOID an effective insecticide. By its use promptly on appearance of any leaf-eating insects damage can be kept at its minimum.

Very respectfully, GEO. T. HOWELL,
Orchard Farm.

ATKINS, GREENE CO., N. Y., Nov. 15, 1900.

The GREEN ARSENOID purchased of you this year has given good satisfaction. In a small way I have used it in an atomizer with whale-oil soap, in plain water with kerosine and in various mixtures of the same. I think it is less liable to burn the foliage than Paris Green, while as an insecticide it is fully as effective. But these tests have only been experimental, as it is my rule to use lime in all mixtures containing arsenical properties. Most of my use of it has been in orchard spraying and I find that with Bordeaux Mixture the ARSENOID remains much longer in suspension than Paris Green.

Yours truly, P. W. KING.

NEWBURGH, N. Y., Nov. 14, 1900.

Through the solicitation of some friends who had informed themselves through experimentations, we placed in stock last season GREEN ARSENOID. Many used it on potatoes this season for the first time with the best results and a great saving. We expect the coming season will show a great increase of sale as its virtues become known.

Yours respectfully,

THEO. MERRITT'S SONS,

Wholesale Druggists.

COLDWATER, N. Y., Nov. 15, 1900.

We found the GREEN ARSENOID fully as effective in killing worms and potato bugs as Paris Green and it was easier to keep in suspension. We did not note any injuries to foliage from its use.

Yours truly,

JOS. HARRIS CO.

KENWOOD, N. Y., Nov. 15, 1900.

I used your GREEN ARSENOID for spraying my fruit trees and found it worked admirably.

Yours truly,

C. OTIS KELLOG,

Office of Oneida Community, Ltd.

SCOTT, IND. Nov. 18, 1900.

Yours of the 14th is at hand. In regard to the GREEN ARSENOID which we got from you we found that it worked very satisfactorily. Used it to subdue currant worms and potato bugs.

Yours truly,

WM. CRAMPTON.

ONSLow, IND., Nov. 19, 1900.

I tried GREEN ARSENOID on apple, plum and cherry trees and currant bushes. I consider it far ahead of Paris Green as it does not require constant stirring and seems to be much more effective in results.

Very respectfully yours,

E. E. BROWN.

MORRIS, MINN., Nov. 19, 1900.

The GREEN ARSENOID purchased of you proved very satisfactory as an insecticide. My limited experience with it leads me to think it as good or superior to anything I have ever used as an insecticide.

Yours truly,

D. T. WHEATON.

MELROSE, FLA., Nov. 20, 1900.

I used your GREEN ARSENOID for experimentation on grasshoppers and other insects and I believe I can say it did the work better than anything I have yet tried.

Yours very truly,

W. E. BAKER.

E. JEFFERSON, ME., Sept. 10, 1900.

I have used your GREEN ARSENOID and like it very much.

Very truly yours,

A. A. KENNEDY.

PATTAGUMPUS, ME., Nov. 22, 1900.

I used GREEN ARSENOID on potato vines and young cabbage plants with good results. I think it is better than Paris Green.

Respectfully yours, M. F. WAITE.

LA SALLE, N. Y., Sept. 9th, 1900.

Well pleased with the GREEN ARSENOID sent me. It seems to be as effective as the best Paris Green and stays much longer in suspension.

Truly yours, T. GREINER.

FT. WALTHALL, VA., Sept. 8, 1900.

The GREEN ARSENOID was as effective as Paris Green and decidedly cheaper.

J. VOLKERT.

HOMESTEAD STOCK & FRUIT FARM,

FARMER, N. Y., Nov. 15, 1900.

We used your GREEN ARSENOID the past season, both for spraying our orchards and as a potato bug exterminator. We found it fully equal, if not superior, to Paris Green as an insecticide and shall want your quotations for the coming season.

Yours truly, W. A. BASSETT.

PENN YAN, N. Y., Oct. 16, 1899.

In reply to yours of the 2d, inquiring of my experience with GREEN ARSENOID, I will say that I used this on fruit trees and also on potatoes, and cannot see but that it was just as effective as any insecticide I have ever used.

Very truly, HOWARD S. FULLAGAR.

FREEHOLD, N. Y., Sept. 25, 1900

This is to certify that I have used your GREEN ARSENOID the past season and have sold the same to my brother patrons and it has given perfect satisfaction.

Yours fraternally, YOEMAN HAIGHT.

GENEVA, N. Y., Sept. 6, 1900.

Replying to your letter of the 5th inst., would say that we have used your GREEN ARSENOID and have found same most satisfactory.

Very truly yours, THE R. G. CHASE CO.

E. SANGERVILLE, ME., Nov. 20th, 1900.

I used GREEN ARSENOID on potatoes. The results were entirely satisfactory.

Very truly yours, W. E. LELAND.

Quality and Prices

GREEN ARSENOID is the product of years of experimentation with the view of obtaining not the cheapest, but the best insecticide. Nevertheless, in its actual working, it is not only the best, but owing to its comparatively greater bulk, one of the cheapest as well. Being twice as bulky as Paris Green, the size of the pound reduces the cost by half as compared with Paris Green. A bushel of GREEN ARSENOID would cost about half as much as a bushel of Paris Green, and yet would kill more insects.

The manufacturers of GREEN ARSENOID were the pioneers in the production of Paris Green, and have for over sixty years manufactured the celebrated S. S. F. Brand, Strictly Pure Paris Green, which has never been excelled in quality.

But Paris Green, though superior to all the substitutes heretofore placed on the market, is far from being an ideal insecticide, and it is on this account that the manufacturers of GREEN ARSENOID have for years devoted much study and patience to the production of an insecticide as nearly perfect as possible.

Almost all the other substitutes for Paris Green owe what virtue they possess to an admixture of Paris Green in their composition, and are practically Paris Green adulterated with Lime Salts, Barytes, etc., and as these adulterants cost less than one cent per pound, they reduce the cost of the insecticide proportionately, and deteriorate the quality of the poison.

Such compounds may be profitable for the manufacturer, but are likely to prove an expensive investment for the consumer.

The GREEN ARSENOID is stronger and better than Paris Green, being free from acetic acid, which is an ingredient even of the purest Paris Green. This acid, besides making the Paris Green heavy and coarse, has a tendency to scorch the foliage.

The GREEN ARSENOID contains the maximum of poisonous property attainable; every particle, though only of microscopic dimensions, being a perfect homogeneous chemical compound, is sure to do its work of destroying the insect whenever it feeds on foliage that has been treated with this poison.

The use of cheap insecticides is a poor policy, for it would be cheaper to buy an article of full strength and do the cheapening by adding some clay that costs next to nothing.

As a matter of fact, many brands of so-called Paris Green, New Process Paris Green, and other similarly-named compounds consist of inferior mixtures, which it is most reprehensible to palm off on the farmer, whose facilities for testing them are limited, and whose crops are consequently jeopardized.

Not only do they contain adulterants that reduce the efficiency of the Paris Green with which they are mixed, but frequently have an admixture of free Arsenious Acid, which scorches and destroys the plants when applied.

Directions for use of **Green Arsenoid**

GREEN ARSENOID can be used either by the dry or wet method, and can always be substituted to advantage for Paris Green.

While it is usually preferable to apply insecticides in liquid form, it is sometimes convenient to use a powder by means of a hand bellows, powder gun or other contrivance.

If used on low growing plants, the poison can be placed in an old fertilizer bag and distributed evenly ~~merely~~ by shaking the bag.

ARSENATE OF LEAD. POISON

ANTIDOTE—Induce vomiting immediately by giving copious doses of an emetic of mustard and warm water; a tablespoonful of mustard mixed in a little water. Then administer hot milk, white of eggs and olive oil.

Call physician at once.

MANUFACTURED BY

SCHOONMAKER & SON,

CEDAR HILL ON THE HUDSON, N. Y.,

U. S. A.

perforations in the Cotton fields of the used, except where employed. Greater out their cost limits

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~~merely enough to show evenly over the surface~~

GREEN ARSENOID can also been used dry on the currant and gooseberry against currant worm, and against the grape-vine flea beetle.

On Tobacco use 100 lbs. of land plaster or ground gypsum for every pound of GREEN ARSENOID.

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Directions for use of **Green Arsenoid**

GREEN ARSENOID can be used either by the dry or wet method, and can always be substituted to advantage for Paris Green.

While it is usually preferable to apply insecticides in liquid form, it is sometimes convenient to use a powder by means of a hand bellows, powder gun or other contrivance.

If used on low growing plants, the poison can be placed in an old fertilizer bag and distributed evenly merely by shaking the bag. In small garden patches an old vessel with perforations in the bottom can be used as a "shaker." In the Cotton fields of the South, the pole and bag duster is commonly used, except where the larger patented air-blast machines are employed. Greater uniformity is attained with these machines, but their cost limits their adoption to larger plantations.

GREEN ARSENOID can be used in the pure dry state, without admixture of other material, against the cotton army worm. For potatoes and eggplant, it can be mixed with equal weight of flour, or preferably lime, and as much as 10 parts of flour or lime may be added for dusting small garden patches.

For application to vegetables which will ultimately be used for food, as the cabbage and cauliflower, 1 ounce of GREEN ARSENOID should be mixed with 6 pounds of flour or 10 of lime, and dusted merely enough to show evenly over the surface

GREEN ARSENOID can also been used dry on the currant and gooseberry against currant worm, and against the grape-vine flea beetle.

On Tobacco use 100 lbs. of land plaster or ground gypsum for every pound of GREEN ARSENOID.

One part of GREEN ARSENOID mixed with 50 parts of bran (with addition of glucose or molasses to make the mass cohere) constitutes an excellent bait in poisoning cut worms, wire worms, locusts, etc. It is often applied to land to be planted in tobacco, tomatoes, cabbage and other crops, and to do this successfully, several essentials are necessary. (1) Land, if sod or grass, should be prepared several days in advance. (2) After the drills are made a pinch of poison mash, about as much as one could hold on a table-spoon, should be dropped in the vicinity (not in the exact place) of the spot where the plant will be set. This should be done before the plants are set out. (3) The application should be made in the afternoon, as near evening as practicable; but where it is necessary, in order to get over large areas, there is no objection to dropping it any time during the day. (4) Care should be taken to keep chickens, turkeys, or animals of any kind that would be liable to eat the mash out of the field.

While the application of insecticides in a dry form is sometimes more easily accomplished than in liquid form, the results are usually less satisfactory because the materials cannot be so evenly distributed and will not adhere as well to the plants. Hence liquid applications are given preference except in some special cases.

For a spraying mixture, GREEN ARSENOID may be used at the rate of one pound to 100 to 250 gallons of water. An average of one pound to 150 gallons of water is a good strength for general purposes—the foliage of the apple and most shade trees. The greater dilutions are adapted for the more tender foliage, such as that of the pear and plum.

If it be desirable to apply an insecticide at the same time with a fungicide, as on the apple for the codling moth and the apple scab fungus, the Bordeaux Mixture may be used instead of water, adding it to the GREEN ARSENOID and lime at the same rate per gallon as when water is used. The use of Bordeaux Mixture in combination with GREEN ARENSOID is especially and most emphatically advised, and the following treatment of some of the most important insect pests and fungous diseases is recommended:

Spray with Green Arsenoid

Combined with Bordeaux Mixture.

APPLE.

Spray with a mixture of one pound of GREEN ARSENOID and 150 gallons of Bordeaux Mixture.

First Application.—Just before the leaf buds burst. This is the only available time for effective treatment against the young caterpillars of the bud moth, which will be poisoned as they gnaw into the bud. It is also the best time to poison the case bearers, as the little caterpillars now begin to feed.

Second Application.—About a week later, just as leaf buds show green at the tips. In this spraying the Bordeaux Mixture acts against the scab fungus, canker disease and leafspot; the canker worms, tent

ARSENATE OF LEAD.

POISON

ANTIDOTE—Induce vomiting immediately by giving copious doses of an emetic of mustard and warm water; a tablespoonful of mustard mixed in a little water. Then administer hot milk, white of eggs and olive oil.

Call physician at once.

MANUFACTURED BY

SCHOONMAKER & SON,

CEDAR HILL ON THE HUDSON, N. Y.,

U. S. A.

For second application, Bordeaux Mixture is used. It is likely to be of service in all other leaf-eating

fall. While the Bordeaux Mixture is used, the ARSENOID is directed against the caterpillars and other insects that lay eggs in the fall of the blossoms. The poison should be taken before the caterpillars are taken to make this

After fourth application, or when it is one-fourth of the Bordeaux Mixture is still needed

for the apple scab and leaf-spot, while at the same time it prevents possible injury to the foliage. The ARSENOID is directed against the later egg-laying by the more belated moths, when the first coating of poison will probably be washed off by the rains. The young larva, eating its way from without into the fruit, gets enough of the poison to destroy it. If the spraying has been properly done, there will be a film of poison over the calyx or eye end of the apple, and when the worm endeavors to enter, as it usually does at the calyx end, it gets its poisonous dose and is destroyed.

One part of GREEN ARSENOID mixed with 50 parts of bran (with addition of glucose or molasses to make the mass cohere) constitutes an excellent bait in poisoning cut worms, wire worms, locusts, etc. It is often applied to land to be planted in tobacco, tomatoes, cabbage and other crops, and to do this successfully, several essentials are necessary. (1) Land, if sod or grass, should be prepared several days in advance. (2) After the drills are made a pinch of poison mash, about as much as one could hold on a tablespoon, should be dropped in the vicinity (not in the exact place) of the spot where the plant will be set. This should be done before the plants are set out in the afternoon, as near evening as possible, in order to get over the heat of the day. It can be done at any time during the day, but chickens, turkeys, or other fowls will eat the mash out of the drills.

While the application of GREEN ARSENOID is more easily accomplished by the use of a brush, it is less satisfactory because the powder does not adhere so well and will not adhere as well as when the more liquid preparations are given preference.

For a spraying application, a rate of one pound of GREEN ARSENOID to one gallon of water, or one pound to 150 gallons of water for purposes — the foliage of the apple, pear, and plum — greater dilutions are adapted for the more tender foliage, such as that of the pear and plum.

If it be desirable to apply an insecticide at the same time with a fungicide, as on the apple for the codling moth and the apple scab fungus, the Bordeaux Mixture may be used instead of water, adding it to the GREEN ARSENOID and lime at the same rate per gallon as when water is used. The use of Bordeaux Mixture in combination with GREEN ARSENOID is especially and most emphatically advised, and the following treatment of some of the most important insect pests and fungous diseases is recommended:

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Second Application.—About a week later, just as leaf buds show green at the tips. In this spraying the Bordeaux Mixture acts against the scab fungus, canker disease and leafspot; the ARSENOID against bud moth, case-bearers, canker worms, tent caterpillars and other leaf-eating insects.

Third Application.—About a week after second application, just before the blossoms open. The spraying should be thorough against scab and leafspot, for which the Bordeaux Mixture is used. At the same time the ARSENOID will most likely be of service in destroying the canker worms, tent caterpillars and other leaf-eating insects.

Fourth Application.—Just after blossoms fall. While the Bordeaux Mixture acts against scab and leafspot, the ARSENOID attacks the codling moth, canker worms, tent caterpillars and other leaf-eating insects. It is the most important application against the codling moth, as it reaches the eggs laid by the moth in the flower end of the fruit shortly after the falling of the blossoms. The calyx end of the fruit must be filled with the poison before the calyx lobes close; hence much pains should be taken to make this application thorough.

Fifth Application.—From 10 to 14 days after fourth application, just before the fruit turns down on the stem or when it is one-fourth to one-half inch in diameter. The Bordeaux Mixture is still needed for the apple scab and leaf-spot, while at the same time it prevents possible injury to the foliage. The ARSENOID is directed against the later egg-laying by the more belated moths, when the first coating of poison will probably be washed off by the rains. The young larva, eating its way from without into the fruit, gets enough of the poison to destroy it. If the spraying has been properly done, there will be a film of poison over the calyx or eye end of the apple, and when the worm endeavors to enter, as it usually does at the calyx end, it gets its poisonous dose and is destroyed.

PEAR.

Spray with mixture of one pound GREEN ARSENOID and 150 gallons Bordeaux Mixture.

First Application.—Just after the blossoms fall; against scab, leaf-blight, leaf-spot, etc., and against codling moth and other leaf-eating insects. The calyx end of the fruit must be filled with the poison before the calyx lobes close.

Second Application.—From 10 to 14 days after first application against same fungi and insects.

N. B.—Against pear leaf-blight, spraying with Bordeaux Mixture before blossoms open will be effective.

STONE FRUITS.

For the curculio of the stone fruits—plum, cherry, peach, etc.—two or three applications should be made, using one pound GREEN ARSENOID to 200 gallons of Bordeaux Mixture; the first as soon as the foliage is well started, the second at the time of the exposure of the young fruit by the falling of the calyx, and perhaps a third a week later, particularly if rains have intervened after the last treatment. The GREEN ARSENOID here acts to destroy the parent curculio instead of the young larvae, which, hatching from eggs placed beneath the skin of the fruit, are not affected by the poison on the outside. The adult curculio, however, as soon as it comes from its hibernation, feeds on the foliage before the trees bloom, and later on the young fruit also, and is destroyed by the GREEN ARSENOID before its eggs are deposited. The Bordeaux Mixture acts against black knot, rot and leaf curl.

GRAPE.

For Grape-vine Flea-beetle.—The vines should be sprayed thoroughly with GREEN ARSENOID, one pound to fifty gallons of Bordeaux and lime, just before the buds begin to swell. Later, when the worms appear on the leaves, both upper and lower surfaces should be treated with spray containing one pound GREEN ARSENOID and 150 gallons of Bordeaux Mixture and lime. The Bordeaux acts against Black Knot, Downy Mildew and Powdery Mildew.

For Grape-vine Saw-fly.—Spray infested vines before the grapes are half grown with GREEN ARSENOID and Bordeaux Mixture, one pound to 150 gallons, taking particular pains to wet the under surface of the leaves.

POTATO.

One pound of GREEN ARSENOID in 100 gallons of Bordeaux Mixture is suitable for the potato against the Colorado beetle and blight.

Spraying in General

IT is no longer an open question as to whether spraying with insecticides and fungicides is profitable, but on the contrary, the overwhelming evidence of the last 15 years proves beyond doubt that the farmer and fruit-grower cannot afford to neglect this method of protecting his crops. It is estimated that at least one-quarter of the annual yield of all crops in the United States is destroyed by insect pests and fungous diseases, and it has been demonstrated that three-fourths of this loss can be prevented by the proper use of insecticides and fungicides, at comparatively small expense. In other words, a loss of \$500,000,000 would be reduced to one of only \$125,000,000 through the universal adoption of proper remedies. Promptness, thoroughness and persistence can not be too strongly insisted upon. An ounce of prevention is worth many pounds of cure. Preventive work should, therefore, be done as much as possible, rather than more difficult and less satisfactory remedial work later. While in some cases the use of insecticides and fungicides is not an immediate necessity, future injury can be averted, and spraying may well be likened to insurance. We know that in the case of many fruit trees and other plants some serious injury from insects or fungi may be expected and it is the part of wisdom to guard against it. Thoroughness is essential, as, if portions of the plants are not properly sprayed, the insects and spores of fungi will not all be destroyed. For applying sprays, pumps with nozzles that form a mist-like spray should be used, it being desirable to cover every part of the plant as lightly as is compatible with thoroughness rather than with coarse drops sprinkled over the foliage. A great variety of spraying pumps is now obtainable including bucket pumps, knapsack pumps and barrel pumps, and the proper accessories. The same general principles are involved in most of these, the styles and construction only varying. Most of the leading pump manufacturers supply suitable equipments. The common garden hose nozzles are much too coarse for satisfactory work and are wasteful of the solutions used.

In many cases one preparation will be effectual against a number of insects and diseases, so that we can combine a fungicide with an insecticide in one application, thereby lessening the expense of spraying. Such a combination is the **GREEN ARSENOID** with the **Bordeaux Mixture**.

The use of Bordeaux Mixture often acts as a preventive, for by a timely application the development of the spores of fungi may be arrested and a plant disease averted or held in check. Furthermore, experiments have shown that Bordeaux Mixture has a beneficial effect upon growing plants, promoting a healthful growth, and in consequence of the foliage remaining longer, a sounder and better keeping fruit is obtained. When applied on Irish potatoes, for instance, the Bordeaux Mixture causes the vines to remain green much longer, and consequently much larger tubers are produced. A notable experiment at the Vermont Experiment Station resulted in a yield of ninety-nine and one-half bushels per unsprayed acre, and two hundred ninety-one bushels per acre sprayed with Bordeaux Mixture under like conditions. In the case of currants and gooseberries, it has been observed that the leaves, when sprayed with Bordeaux Mixture, instead of falling off about August 1st, remained until September or October, and the following year's crop was improved.

Comparative tests on apple-trees showed that fifty to eighty per cent. of fruit which would otherwise have been wormy were protected by spraying with

ARSENOID, and in actual market experience the price was enhanced from \$1.00 to \$1.50 per barrel at a cost of only a few cents per tree for labor and material.

For an insecticide costing, say, 20 cents per pound, and used at the rate of one pound to 150 gallons of water, if an average of five gallons to the tree be taken for an apple orchard of 1000 trees, 5000 gallons of spray would be required or 33 pounds of insecticide for each spraying, and for five applications 165 pounds would be used at a cost of \$33.00, or three and one-third cents per tree for the poison.

Fruit trees should never be sprayed when in bloom, an account of the liability of poisoning honey-bees or other insects useful as cross-fertilizers.

CONDENSED GENERAL SPRAYING DIRECTIONS.

APPLE.

Scab.—*A.* Strong Copper Sulphate or Bordeaux, when leaf buds begin to expand. *B.* Bordeaux, when leaves are fully expanded, but before flower buds open. *C.* Repeat *b.* immediately after falling of blossoms. *D.* Repeat *C* ten days later. *E.* The same after two weeks, if necessary.

Canker Worm and Tent Caterpillar.—*A.* ARSENOID, when caterpillars first appear. *B.* If insects remain, repeat *A* after five to ten days. *C.* The same.

Rust.—Same as for Scab, *B* and *C* being of greatest importance. As one stage of the disease is passed on cedar trees, the removal of these, where practical, will prevent its spread.

Bud Moth and Case Bearer.—*A.* ARSENOID as soon as tips of expanding leaf buds appear. *B.* ARSENOID before the opening of blossom buds.

Codling Moth.—*A.* ARSENOID, immediately after the blossoms have fallen. *B.* Repeat seven to twelve days later according to weather and before the fruit turns calyx end downward. Remove fallen fruit.

San Jose Scale.—*A.* A 20% kerosene and water mixture, when leaves drop in fall. *B.* Repeat *A* before leaves appear in spring. *C.* Repeat *B* in June, when the first brood comes out. Use kerosene sprays only on a sunny or breezy day.

BEAN.

Anthraxnose, Pod-Rust.—*A.* Bordeaux, when first true leaf has expanded. *B.* Repeat *A* ten days later. Repeat at short intervals to keep the foliage covered by the mixture.

BEET.

Leaf Spot.—*A.* Bordeaux, when plants are six inches high. *B., C.* Repeat *A.*

Root-Rot.—(Sugar beet) Apply sixty to seventy bushels of lime per acre.

CABBAGE AND CAULIFLOWER.

Aphis.—*A.* A 5% kerosene and water mixture, on young plants. *B.* Repeat when necessary.

Worm and Looper.—Spray with following solution:

Resin Mixture.....	1 gallon
Water	16 gallons
Milk of Lime.....	3 gallons
GREEN ARSENOID.	$\frac{1}{4}$ pound

First Application. When the plants are small and have about a dozen leaves, the second being made just before the plants commence to bud, even though but few worms are to be seen. The spray should *not* be used on cabbage after the buds are two-thirds formed; and only skillful and intelligent laborers should use it on cauliflower. It should never be used after the "flower" has begun to form. The resin lime mixture causes the poison to adhere. Use Hellebore, if plants are heading.

CELERY.

Rust.—*A.* The plants in the seed-bed should be sprayed with Bordeaux Mixture as soon as they are up and repeated every two weeks before transplanting to the field. *B., C., D.* Repeat *A* every two weeks if indications of disease are present.

Celery Caterpillar.—Arsenoid as soon as insect appears, especially while plants are young.

CHERRY.

Black-Knot, Rot and Shot-Hole Fungus.—See Plum Aphis. *A.* A 10% kerosene and water mixture, when insects appear. (*B., C., etc.* Repeat *A.* every four days if necessary).

Slug.—*A.* ARSENOID, Hellebore or air-slaked lime when insects appear. (*B., C.* Repeat in ten to fourteen days).

Curculio.—See plum.

CUCUMBER, CANTALOUPE AND SQUASH.

Blight and Downey Mildew.—Bordeaux every ten days or often enough to keep plants well covered from the time the plants are very small until frost.

Striped Cucumber Beetle.—Keep plants well covered with Bordeaux when young. (This does not kill the beetles, but keeps them off.)

EGG PLANT.

Leaf Spot.—*A.* As soon as plants are established in the field, Bordeaux Mixture. *B., C.* Repeat *A* at intervals of two to three weeks until first fruits are half grown. *D.* Ammoniacal Copper Carbonate, repeat when necessary.

CURRENT.

Leaf Blight.—*A.* Bordeaux, when fruit is half grown. *B.* Ammoniacal Carbonate of Copper, before fruit is picked. *C.* Bordeaux, after fruit is picked. (*D.* Repeat *C.* two weeks later.)

Worm.—As soon as larvae appear spray with GREEN ARSENOID, one pound to 200 gallons of water. Direct the spray toward the under side of the leaves, and repeat when necessary until fruit is half grown. It is important to make the first application while the worms are yet very young. The plants should be closely watched as the worm will strip the bushes of leaves in a few days if left unmolested. *B.* Hellebore, after fruit is half grown.

San Jose Scale.—See under Apple.

Cane Blight.—Go over the patch three or four times during the summer, and cut out and burn affected canes. Cut well below the point of disease.

GOOSEBERRY.

Mildew.—*A.* Bordeaux, before buds break. *B.* Potassium Sulphide, as the first leaves unfold. *C. and D.* Repeat *B* every two weeks until danger is past

Leaf Blight and Worm.—See Currant.

GRAPE.

Anthracnose.—*A*. Iron Sulphate and Sulphuric Acid solution, before buds break in spring. *B*. Repeat *A* in a few days if untreated vines are detected. If spraying for Rot, further treatment is unnecessary. If not, two or three applications of Bordeaux will be beneficial.

Black Rot.—*A*, Bordeaux, just before blossoming. *B*. Repeat *A* after fruit is set, every two weeks. *C*. Ammoniacal Copper Carbonate, every seven to fourteen days, after the fruit is half grown.

Downey Mildew, Powdery Mildew, Ripe Rot.—Controlled by spraying for Rot, Steely Bug. *A*. ARSENOID, as buds are swelling. *B*. Repeat *A* after ten to fourteen days.

Flea Beetle.—*A*. ARSENOID, as buds begin to swell. *B*. ARSENOID, when worms appear on leaves.

MELONS.

Downey Mildew, Striped Beetle.—See cucumber.

Louse.—A 5 or 10% kerosene and water mixture, every ten days till the pest is checked.

NURSERY STOCK.

Fungous Diseases.—*A*. Bordeaux, when leaves appear. *B*., *C*., etc., Repeat *A* at intervals of ten to fourteen days.

PEA.

Mildew.—If for a late crop, Bordeaux every two weeks. It is unnecessary to spray the early crop.

Green Pea Louse.—A 15% kerosene and water mixture.

PEACH, NECTARINE, APRICOT.

Brown Rot.—See Plum.

Leaf Curl.—*A*. Bordeaux, after buds swell. *B*. Repeat *A* at intervals of ten days or so. *C*. Repeat *A* after blossoms fall.

Black Spot.—Controlled by the applications for Curl and two subsequent sprayings with Bordeaux.

Curculio.—See Plum. (*Yellows*—dig up and burn infested trees.)

PEAR.

Twig Blight.—Cut out and burn all diseased parts as soon as noticed. Cut 8 to 12 inches below the affected part.

Leaf Blight, Fruit Spot, Leaf Spot.—*A*. Bordeaux, before blossoms open. *B*. Repeat *A* after blossoms fall. *C*. The same, two weeks later. If further applications are necessary, use Ammoniacal Carbonate, as bordeaux will tarnish the fruit.

Scab.—See Apple.

Leaf Blister.—A 15 or 20% kerosene and water mixture, before buds swell in spring. (Burning the branches after pruning will also lessen the number).

Psylla.—A 5 or 10% kerosene and water mixture when first leaves unfold; or whale-oil soap, one pound to ten gallons of water. *B*., *C*., etc. Repeat *A* at intervals of two to three days, if necessary.

Slug.—See under Cherry.

San Jose Scale, Codling Moth.—See under Apple.

PLUM.

Brown Rot.—*A.* Strong Copper Sulphate solution before buds swell in spring. *B.* Bordeaux, when fruit is set. *C.* Repeat *B* after ten to fourteen days. *D.* Ammoniacal Copper Carbonate when fruit is two-thirds grown.

Leaf Blight and Shot Hole Fungus.—*1.* Bordeaux as soon as leaves have unfolded. *B., C.* Repeat *A* every ten or fifteen days until fruit is three-fourths grown. *D.* Ammoniacal solution of Copper Carbonate after fruit is nearly grown.

Black Knot.—*A.* Bordeaux, during the first warm days of early spring. *B.* Repeat *A* when buds are swelling. *C., D.* Repeat *A* the last of May and the middle of June. Combine with spraying for Rot. Cut out and burn diseased parts whenever they are seen, and paint wounds with linseed oil. Clear away wild plums and cherries near orchard.

Curculio.—ARSENOID (1 pound in 200 gallons Bordeaux) as soon as foliage is well started. (Jar trees for two or three weeks after fruit is set, at intervals of one to three days, using Curculio Catcher to gather the insects).

Plum Scale.—*A.* 25% kerosene and water, in autumn after the leaves have fallen. *B., C.* Repeat *A* in spring, before buds open.

San Jose Scale.—See under Apple.

POTATO.

Early Blight.—*A.* Bordeaux, when tops are one-half or two-thirds grown. *B., C.* Repeat *A* at intervals of two or three weeks.

Late Blight or Rot.—*A., B., C.* Bordeaux, as for early blight. *D., E.* Repeat every two weeks.

Scab.—*A.* Avoid planting potatoes on soil known to be infested with the disease. *B.* If seed is scabby, soak for one and one-half hours in solution of corrosive sublimate, using one ounce of Sublimate to eight gallons of water; then dry and cut. Or for immediate use cover with lime or plaster.

Potato Bug.—*A.* ARSENOID (1 pound to 100 gallons of water) when the beetles or slugs first appear. *B., C.* Repeat *A* if necessary at intervals of 10 to 15 days. Use the poison in Bordeaux if spraying for Blight.

QUINCE.

Leaf-Blight or Fruit-Spot.—*A.* Bordeaux as soon as blossom buds appear. *B.* When fruit has set, repeat *A.* *C.* Repeat *A* at intervals of two weeks or so, until fruit is nearly grown. *D.* If later applications are necessary, use Ammoniacal Solution of Copper Carbonate to avoid staining the fruit.

Codling Moth and Curculio.—Use one pound of GREEN ARSENOID with 150 gallons of lime-water or Bordeaux Mixture as soon as fruit sets, followed by one or two later applications at intervals of ten days, or less if rains fall in the mean time.

RASPBERRY, BLACKBERRY, DEWBERRY.

Anthracnose.—*A.* A strong Copper Sulphate solution before the buds break. *B.* Bordeaux, when the young canes are six to ten inches high. *C. D.,* Repeat *B* at intervals of one to three weeks. Use Ammoniacal Carbonate of Copper when the fruit begins to ripen. Keep spray from the foliage of bearing plants as much as possible.

Orange Rust.—Dig up and burn diseased plants when found.

Worm.—As under Currant.

ROSE.

Black Spot Mildew.—Spray plants every ten days with Ammoniacal Carbonate of Copper or weak Sulphate of Copper. Bordeaux would discolor the foliage.

Aphis, Leaf-Hopper.—5 or 10% kerosene water mixture or tobacco water at short intervals.

Red Spider.—Turn a hard spray from the hose on the plants, three or four times a week; keep house as damp as possible without injury to the plants.

STRAWBERRY.

Leaf Blight or Rust.—*A.* Bordeaux, as soon as growth begins. *B.* Repeat *A* in about two weeks. *C.* Ammoniacal solution of Copper Carbonate after fruit has set. *D., E., etc.* After fruit is picked, Bordeaux every two or three weeks throughout the season. *New Beds.* Bordeaux every two or three weeks throughout the season after plants become well established.

Mildew.—*A.* Potassium Sulphide as soon as growth begins. *B., C., etc.* Repeat *A* every week or ten days until fruit approaches maturity. An occasional application after fruit is picked, if necessary.

Root Louse or Aphis.—Tobacco dust around plants. Plow down badly infested fields.

Leaf Roller, Slug, Etc.—GREEN ARSENOID and Bordeaux as soon as first insects appear.

TOMATO.

Blight.—*A.* Bordeaux once or more while in seed-bed (this is very important). *B.* Repeat *A* as soon as plants are well established in the field. *C., D., etc.* Repeat every ten or fifteen days until fruit approaches maturity.

Tomato Worms.—Use GREEN ARSENOID in Bordeaux.

Formulas

GREEN ARSENOID, AS A SPRAY.

GREEN ARSENOID.....	1 pound
Water	150-300 gallons
Quick Lime.....	1-3 pounds

The GREEN ARSENOID should first be made into a thin paste in a small quantity of water, and powdered or quicklime added. The addition of lime is particularly suitable for very tender foliage. An excess of lime can do no injury. The mixture should be strained into spraying-tank or reservoir, and then diluted with water. Bordeaux Mixture can be substituted for the water.

GREEN ARSENOID, AS A BAIT.

Wheat Bran.....	50 pounds
Molasses or Glucose.....	2 quarts
GREEN ARSENOID.....	1 pound
Water.....	enough to make a thick mash.

The bran should be placed in an old tub or barrel and to this the GREEN ARSENOID should be added and stirred thoroughly with a shovel or other implement before the water or molasses is stirred in. Stir the molasses with about one gallon of warm water and pour it over the bran and ARSENOID, thoroughly stirring until it is well mixed. Then add enough water to make a mash, about the consistency of dough, so that it can be handled easily without running.

WHITE HELLEBORE AND PYRETHRUM.

Preferably in water, 1 ounce to 3 gallons; or dry, mixed with $\frac{1}{4}$ part of flour to make it adhesive. Hellebore and Pyrethrum are used chiefly on ripening fruit, as they are much less poisonous than the GREEN ARSENOID.

RESIN LIME MIXTURE.

In spraying for chewing insects on plants with smooth leaves, as cabbage and cauliflower, it is difficult to make the poison adhere. This may be overcome by using the GREEN ARSENOID in the following material:

Pulverized Resin.....	5 pounds
Concentrated Lye.....	1 pound
Fish Oil (or other animal oil, except tallow).....	1 pint
Water	5 gallons

Heat oil and resin with a gallon of water till the resin is softened and add lye. Then add the remaining 4 gallons of water and boil about 2 hours, making 5 gallons of this stock solution.

When needed for spraying take

Resin Mixture	1 gallon
Whitewash.....	3 gallons
GREEN ARSENOID	$\frac{1}{4}$ pound
Water	16 gallons

KEROSENE AND WATER MIXTURE.

This may be used in any case where kerosene emulsion or whale-oil soap has been recommended in the past. It is more economical than the emulsion and is easier to apply. For scale insects use a 15% or 25% mixture. 5% strength is strong enough for such insects as mealy bugs, plant lice and thrips. Cabbage worms, currant worms, and other soft-bodied insects may also be treated successfully.

TOBACCO WATER.

Boil stems and strain liquid. Add water to makes two gallons of liquid to each pound of stems used. For soft-bodied insects, the efficiency of Tobacco Water will be increased by stirring in one pound of whale-oil soap to each fifty gallons.

CORROSIVE SUBLIMATE.

Corrosive Sublimate.....	1 ounce
Water	8 gallons

BORDEAUX MIXTURE.

Copper Sulphate.....	5 pounds
Fresh Lime (unslaked).....	5 pounds
Water	50 gallons

The copper salt is dissolved in a wooden tub or earthen jar and the lime slaked in a separate vessel. Dissolve the Copper Sulphate ("Blue Stone," "Blue Vitriol") in about two gallons of hot water in a wooden or earthen vessel by stirring, or by suspending it from the top of the vessel in a cloth bag; pour the solution into a tank or barrel used for spraying and fill one-third to one-half full of water. Slake the lime by the addition of a small quantity of water, and when slaked add two or three gallons of water and stir freely. In pouring the milk of lime thus made into the sulphate solution it is advisable to pass it through a brass wire strainer of about thirty meshes to the inch (No. 50) or through a cheese-cloth backed by common window screen. Stir constantly while adding the lime. Add water to make the amount desired. Much time may be saved by preparing stock solutions. Dissolve any number of pounds of Copper Sulphate in the same number of gallons of water; a gallon of solution

will then contain one pound of copper salt. In a similar way a stock solution of lime may be prepared. Keep both solutions tightly covered and stir thoroughly before dipping any out. Use one gallon of each solution to each eight gallons of water. To test the mixture in order to determine if sufficient lime has been added to combine with all the copper oxide in the sulphate of copper, add a drop of ferro-cyanide of potassium to the solution. If a brown precipitate is formed, more lime should be added till the Bordeaux Mixture shows no further discoloration from the ferro-cyanide solution. Good strong lime should be used, and rather an excess of lime than too little, as an excess will do no harm.

COPPER SULPHATE SOLUTION, (Strong).

Copper Sulphate (Blue Vitriol)..... 1 pound
Water..... 15 to 25 gallons

Dissolve the Copper Sulphate in water when ready for use; or take a gallon of the stock solution (see Bordeaux Mixture). This strength is to be used only before the buds break. It should never be applied to foliage. For peaches and Japan plums use 25 gallons of water.

COPPER SULPHATE SOLUTION, (Weak).

Copper Sulphate (Blue Vitriol)..... 1 pound
Water..... 200 to 300 gallons

This solution is sometimes used as a substitute for the Ammoniacal Carbonate of Copper in spraying ripening fruit, especially plums. At the rate of one-fourth pound per barrel it is equally effective and seldom injures the foliage appreciably, though it is always better to add a little milk of lime. Use the weaker strength given on peaches and Japan plums. It does not stick like Bordeaux and must be used about twice as often.

AMMONIACAL COPPER CARBONATE.

Copper Carbonate..... 5 ounces
Ammonia (26 Beaumé) about..... 3 pints
Water..... 45 to 50 gallons

Make a paste of the copper carbonate with a little water and dilute the ammonia with seven to eight volumes of water. Add the diluted ammonia to the paste, but be careful to use only enough to dissolve all the copper carbonate. Allow the solution to settle and use only the clear blue liquid. This loses strength on standing, but may be kept indefinitely in a stoppered bottle. For spraying, dilute to 45 to 50 gallons. Care should be taken not to add too much ammonia, as an excess will burn the foliage.

IRON SULPHATE AND SULPHURIC ACID SOLUTION.

Iron Sulphate (Copperas)..... 110 pounds
Sulphuric Acid (Commercial)..... 1 quart
Hot Water..... 26 gallons

Add the acid to the copperas and pour on the water. Use when fresh. To be used only as a wash before the buds swell, applied with brush or sponge. Its chief value is for grape anthracnose.

POTASSIUM SULPHIDE SOLUTION.

Potassium Sulphide..... $\frac{1}{2}$ to 1 ounce
Water..... 1 gallon

This loses strength in standing and should be used immediately. Keep the Sulphide in a stoppered bottle. Valuable for mildews, especially the gooseberry mildew.

GREEN ARSENOID

*Unquestionably the Most Effective,
the Most Reliable, and in Every Way*

The Best Insecticide

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50 lb. Kegs,	-	-	-
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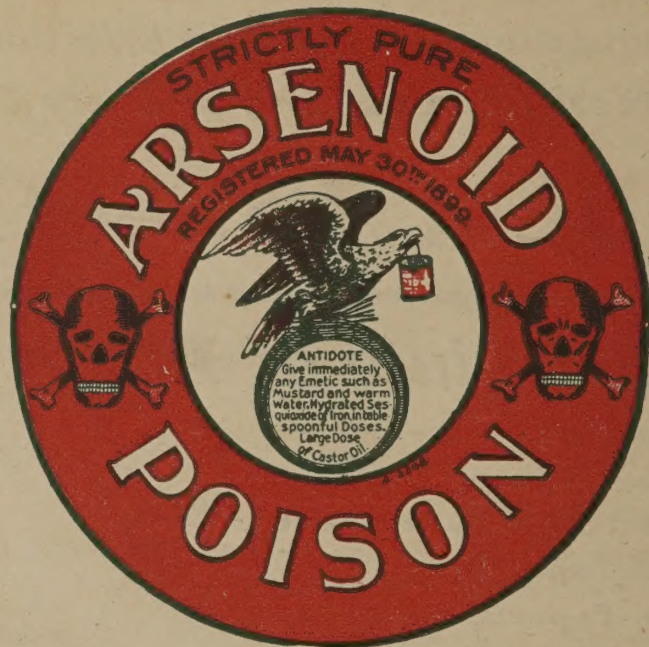
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